Remarks

Claim 1 is amended.

Claims 1, 2, 7-12, 17-19 and 22-25 are pending and are under consideration.

There are no allowed claims.

Claim 1 is amended to change the lower limit of R_1 to be 23 carbon atoms. Support is found in the specification, second paragraph, page 6.

No new matter is added.

Previous rejections are withdrawn. New rejections apply.

Claims 1, 2, 7-12, 17-19 and 22-24 are rejected under 35 USC 103(a) as being unpatentable over Tsai, et al., U.S. Pat. No. 6,218,009 in view of Mor, et al., U.S. Pat. No. 6,146,757.

Applicants respectfully traverse these rejections.

The Tsai reference teaches core-sheath fibers with a polyolefin core and a wettable polyester blend sheath.

The Examiner points out that Tsai does not teach a melt blend of wetting agent and polyolefin. Tsai teaches a blend of a polyester and a wetting agent. The wetting agent of Tsai may be UNITHOX 480 or UNITHOX 750 ethoxylated alcohols.

Mor teaches wettable fiber or filaments having a thermoplastic polymer, a first wetting agent and a second wetting agent.

The second wetting agent of Mor may be an alkoxylated fatty alcohol.

The thermoplastic polymer of Mor is preferably an olefin polymer, more preferably polypropylene (paragraph bridging columns 5 and 6).

The Examiner states that it would have been obvious to use the polypropylene suggested by Mor as the sheath component rather than the polyester of the bicomponent fiber of Tsai.

Applicants respectfully submit that this analysis is not correct, as it is certainly not obvious to substitute polyolefin for polyester. Those skilled in the art would not be motivated to substitute a polyolefin of Mor for the polyester blend of Tsai.

Mor discusses the differences between polyolefins and polymers with functional groups such as polyesters. The functional groups of polyesters are responsible for their water absorption characteristics. These polymers degrade over a period of time when exposed to acidic or alkaline environments. The solution to this problem has been to use fibers made from additon polymers such as polyolefins. See Mor, col. 4, lines 55-66.

The Examiner states that the wetting agent of Tsai meets the requirements of present formula Ia (page 7 of the Action). Applicants further submit that this is not correct. Tsai discloses UNITHOX 480 or UNITHOX 750 as wetting agents. These wetting agents have an average linear hyrdrocarbon chain length between 26 and 50 carbon atoms. Tsai gives no guidance as to the number of repeating ethoxylate units. If one looks to UNITHOX 480 or UNITHOX 750 for guidance, the number of repeating ethoxylate units is between 17 and 42 (UNITHOX data sheet, of record). The number repeat ethoxylate units in these compounds are outside the range of compounds of present formula Ia (2 to 10).

From the cited combination of references, those skilled in the art would have no direction towards which type of ethoxylated alchohols to choose as a wetting agent. Would they choose ethoxylated alcohols with alkyl groups of from 26 to 50 carbons (Tsai) or from 8 to 22 carbons atoms (Mor, col. 6, lines 32-33)? Would they choose ethoxylated alcohols with from 17 to 42 repeating ethoxylate groups (Tsai), or would they choose ethoxylated alcohols with from about 2 to about 10 repeating ethoxylate groups (Mor, col. 6, lines 34-38)?

Those skilled in the art could not have arrived at the present specific ethoxylated alcohols from the disclosure of the cited references. Further, the outstanding results of the present working Examples could not have been expected from the combination of the cited disclosures.

Claim 1 is amended to avoid the disclosure of Mor, col. 6, line 32, where the number of carbon atoms of the alkoxylated fatty alcohol is stated to be from about 8 to about 22. Col. 9, lines 23-27 and 55-59 states that the number of carbon atoms is from about 8 to about 20.

Present claim 22, aimed at the compound employed in the working Examples, certainly cannot be arrived at from the disclosure of the cited references. The HLB value of the wetting agent of the present working Examples and present claim 22 (UNITHOX 420) is 4 (UNITHOX data sheet). Tsai teaches that the wetting agents have an HLB value of between about 10 to about 40, about 10 to about 20, or about 12 to about 16 (col. 11, lines 6-9). Tsai thus teaches away from present claim 22.

In view of the present amendments and remarks, Applicants submit that these rejections are addressed and are overcome.

Claim 25 is rejected under 35 USC 103(a) as being unpatentable over Tsai et al. in view of Mor and further in view of Gessner, et al., U.S. Pat. No. 5,733,822.

Applicants submit that these rejections are overcome as are the rejections over claims 1, 2, 7-12, 17-19 and 22-24.

To summarize:

1. Those skilled in the art would not combine the disclosures of Mor and Tsai as polyester and polyolefins are not interchangeable. This is pointed out in the disclosure of Mor.

2. With the combination in hand, one skilled in the art could not have arrived at the present ethoxylated alcohols of formula Ia with a specifically defined R_1 group and a specific number of ethoxylate groups.

3. Those skilled in the art could not have expected the outstanding results as demonstrated in the working Examples.

4. Tsai teaches away from present claim 22 by the definition of the HLB values of the wetting agents.

Applicants submit that the present invention is an important teaching to the public that cannot be gleaned from the cited art.

Applicants aver that the present claim rejections are addressed and are overcome.

The Examiner is kindly requested to reconsider and to withdraw the present rejections.

Applicants note that Second and Third Supplemental Information Disclosure Statements have been submitted after the last Office Action. The Examiner is kindly requested to indicate that the references listed therein are considered by returning an initialed copy of PTO form 1449.

Applicants submit that the present claims are in condition for allowance and respectfully request that they be found allowable.

Respectfully submitted,

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